

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1 to 9. (Canceled).

10. (Previously Presented) A sheathed-element glow plug for a self-igniting internal combustion engine, comprising:

a heating element projecting into a combustion chamber of the internal combustion engine;

a current feed-through via which a heating current for the heating element is fed through an opening in the combustion chamber; and

a switch positioned in the region of the current feed-through, wherein the heating current is adapted to be controlled by opening and closing the switch.

11. (Previously Presented) The sheathed-element glow plug as recited in Claim 10, wherein a control circuit for the switch is positioned in the region of the current feed-through, and wherein the control circuit produces a signal for opening and closing the switch.

12. (Previously Presented) The sheathed-element glow plug as recited in Claim 11, further comprising a first feed line adapted to be connected to a terminal for a supply voltage for the heating current, and a second feed line connected to the control circuit for transmitting a control signal to the control circuit.

13. (Previously Presented) The sheathed-element glow plug as recited in Claim 11, further comprising an input for a line, wherein the input is connected to the switch and the control circuit, and wherein an operating voltage and a control signal for the control circuit are adapted to be simultaneously applied via the input.

14. (Previously Presented) The sheathed-element glow plug as recited in Claim 11, wherein the control circuit includes a means for determining the

temperature of the heating element, and wherein the heating current is controlled as a function of a signal from said means.

15. (Previously Presented) The sheathed-element glow plug as recited in Claim 10, wherein the heating element is one of a metallic and ceramic glow element.

16. (Previously Presented) The sheathed-element glow plug as recited in Claim 15, wherein the glow element is adapted to be fastened in the opening of the combustion chamber by use of a housing, and wherein the housing is also adapted to house the switch and the control unit.

17. (Previously Presented) The sheathed-element glow plug as recited in Claim 16, wherein the switch and the control circuit are integrated on one chip.

18. (Previously Presented) The sheathed-element glow plug as recited in Claim 17, wherein the chip is applied in the housing without packaging.

19. (Previously Presented) The sheathed-element glow plug as recited in Claim 10, further comprising: a housing, the heating element connectible to a ground potential of the housing.

20. (Previously Presented) The sheathed-element glow plug as recited in Claim 10, further comprising a regulator configured to adjust the heating current.

21. (Previously Presented) The sheathed-element glow plug as recited in Claim 10, wherein the switch includes a transistor.

22. (Previously Presented) The sheathed-element glow plug as recited in Claim 10, wherein the switch includes a chip connectible via one of at least one soldering element and at least one wire to at least one feed line.

23. (Previously Presented) The sheathed-element glow plug as recited in Claim 12, wherein the first feed line is adapted to be connected to the terminal in a direction facing away from the combustion chamber.

24. (Previously Presented) The sheathed-element glow plug as recited in Claim 16, wherein the housing includes a raised helical rib for a screwing, the glow element adapted to be fastened in the opening of the combustion chamber via the screwing.

25. (Previously Presented) A sheathed-element glow plug for a self-igniting internal combustion engine, comprising:

- a heating element projecting into a combustion chamber of the internal combustion engine;

- a current feed-through via which a heating current for the heating element is fed through an opening in the combustion chamber;

- a switch configured to control the heating current by opening and closing the switch; and

- a housing containing the heating element, the current feed-through, and the switch.

26. (Previously Presented) The sheathed-element glow plug as recited in Claim 25, wherein the housing includes a raised helical rib for a screwing, the heating element adapted to be fastened in the opening of the combustion chamber via the screwing, the switch positioned in the region of the raised helical rib.

27. (New) The sheathed-element glow plug as recited in Claim 10, wherein the switch is arranged to be cooled by a cylinder wall of the internal combustion engine.

28. (New) The sheathed-element glow plug as recited in Claim 10, wherein the switch includes a semiconductor chip.

29. (New) The sheathed-element glow plug as recited in Claim 25, wherein the switch is arranged to be cooled by a cylinder wall of the internal combustion engine.